

WHAT IS CLAIMED IS:

1. A method of tenderizing naturally tough chicken, the method comprising:

a) providing a suitable grade of naturally tough chicken; and

b) treating the naturally tough chicken with a composition comprising an enzyme mixture; and

where the enzyme mixture consists of between about 98.7% and about 99.7% bromelin, between about 0.02% and about 0.08% ficin and between about 0.01% and about 0.05% papain.

2. The method of claim 1, where the enzyme mixture consists of between about 99% and about 99.4% bromelin, between about 0.04% and about 0.06% ficin and between about 0.02% and about 0.04% papain.

3. The method of claim 1, where the enzyme mixture consists of about 98.2% bromelin, about 0.05% ficin and about 0.03% papain.

4. The composition of claim 1, where the enzyme mixture is present in an amount of between about 0.5% and about 6% of the composition.

5. The composition of claim 1, where the enzyme mixture is present in an amount of between about 0.7% and about 2% of the composition.

6. The composition of claim 1, where the enzyme mixture is present in an amount of about 1% of the composition.

7. The method of claim 1, where the composition used to treat the naturally tough chicken additionally comprises a carrier.

8. The method of claim 8, where the carrier is NaCl.

9. The method of claim 7, where the carrier is present in an amount of between about 25% and about 99% of the composition.

10. The method of claim 7, where the carrier is present in an amount of between about 50% and about 99% of the composition.

11. The method of claim 7, where the carrier is present in an amount of about 98.5%

of the composition.

12. The method of claim 1, where the composition used to treat the naturally tough chicken additionally comprises a processing aid.

13. The method of claim 12, where the processing aid is soybean oil.

14. The method of claim 12, where the processing aid is present in an amount of between about 0.1% and about 2% of the composition.

15. The method of claim 12, where the processing aid is present in an amount of between about 0.3% and about 1% of the composition.

16. The method of claim 12, where the processing aid is present in an amount of about 0.5% of the composition.

17. The method of claim 1, where the composition used to treat the naturally tough chicken comprises about 98.4% carrier, about 1.1% enzyme mixture and about 0.5% processing aid.

18. The method of claim 1, where the naturally tough chicken provided is partially or completely skinned, boned or both.

19. The method of claim 1, additionally comprising removing waste products or excess fat or both from the naturally tough chicken.

20. The method of claim 1, where the naturally tough chicken provided is an amount between about 0.1 kg to about 10,000 kg.

21. The method of claim 1, where the naturally tough chicken provided is an amount between about 100 kg and 6000 kg.

22. The method of claim 1, where the ratio of weight of the composition to the total weight of the naturally tough chicken being treated with the composition is between about 1:200 and about 1:1500.

23. The method of claim 1, where the ratio of weight of the composition to the total weight of the naturally tough chicken being treated with the composition is between about 1:450 and about 1:650.

24. The method of claim 1, where treating the naturally tough chicken comprises injecting the naturally tough chicken with a solution comprising the composition.

25. The method of claim 24, where the solution injected additionally comprises ice, NaCl and potable water.

26. The method of claim 24, where the solution injected is between about 9% and about 15% of the weight of the chicken being injected.

27. The method of claim 24, where the solution injected is about 12% of the weight of the naturally tough chicken being injected.

28. The method of claim 1, further comprising adding to the naturally tough chicken one or more than one substance selected from the group consisting of flavoring, NaCl, moisture enhancing agents, preservatives, and potable water.

29. The method of claim 1, further comprising tumbling the treated naturally tough chicken at a pressure and rotation speed selected to more evenly distribute the enzyme mixture throughout the treated chicken.

30. The method of claim 29, where the pressure is a near vacuum.

31. The method of claim 29, where the rotation speed is about between about 10 to about 15 revolutions per minute.

32. The method of claim 1, further comprising exposing the treated naturally tough chicken to a relative vacuum a closed container.

33. The method of claim 32, where the closed container is a polymer bag.

34. The method of claim 32, where the relative vacuum is about -1.5 bar.

35. The method of claim 1, further comprising packaging the treated naturally tough chicken in a commercial package.

36. The method of claim 1, further comprising cooking the treated naturally tough chicken.

37. The method of claim 36, where cooking the treated naturally tough chicken comprises raising the core temperature of the treated naturally tough chicken to about 70°C.

38. The method of claim 1, further comprising distributing the treated naturally tough chicken to an intermediate wholesale or retail establishment.